

International application No.

PCT/US04/03394

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : H04L 7/027 US CL : 380/261			
According to International Patent Classification (IPC) or to both national classification and IPC			
B. FIELDS SEARCHED			
Minimum documentation searched (classification system followed by classification symbols) U.S.: 380/261, 256, 42, 43, 44, 283; 455/607; 398/43,47,52,75, 135; 372/26; 359/238,244			
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched NPL			
Electronic data base consulted during the international search tname of data base and, where practicable, search terms used: EAST			
C. DOCUMENTS CONSIDERED TO BE RELEVANT			
Category *	Citation of document, with indication, where app	propriate, of the relevant passages	Relevant to claim No.
х	US 5,675,648 A (TOWNSEND) 7 October 1997, fig. 4, col. 1 lines 1-67, col. 2 lines 1-		1,2,4,10
Y	8, 18-25, col. 4 lines 17-48, col. 6 lines 41-62, col. 8 lines 25-57.		3,5-9,11-18
Y	US 5,764,765 A (PHOENIX et al.) 9 June 1998, col. 1 lines 50-67, col. 2 lines 10-15, col. 3 lines 29-47, 55-64.		1-18
Α	US 5,515,438 A (BENNETT et al.) 7 May 1996, Entire Document.		1-18
Y	US 4,662,003 A (EICHWEBER) 28 April 1987, abs., col. 1 lines 1-45, 55-60, col. 2 lines 40-60, col. 3 lines 37-55.		1-18
Y	US 5,307,410 A (BENNETT) 26 April 1994, lig.s 1, 2, 3, col. 3 lines 17-51, col. 1 lines 1-15, col. 4 lines 49-through col. 5 line 28.		1-18
A	the Angelogy A (DMANIC) 22 Combine 1990. Entire Document		1-18
A	US 6,272,224 B1 (MAZOURENKO et al.) 7 August 2001, Entire Document.		1-18
	er documents are listed in the continuation of Box C.	See patent family annex.	
Purrier documents are risted in the contraction of the international filing due or priority			
A documen	nt defining the general state of the art which is not considered to be	date and not in conflict with the appli- principle or theory underlying the in-	rentian but effect to understand the
1	rular relevance application or patent published on or after the international filing date	"X" document of particular relevance; the considered novel or cannot be considered when the document is taken alone	ered to involve an inventive step
*L** document which may throw doubts on priority claim(s) or which is cited to establish the publication due of another citation or other special reason (as specified)		-Y ⁻ document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more (when such documents, such combination being obvious to a person skilled in the art	
1	nt referring to an oral disclosure, use, exhibition or other means	- · · ·	
*P" document published prior to the international filing date but later than the "&" document member of the same patent family priority date claimed			
Date of the actual completion of the international search		Date of mailing of the international search report 11 FEB 2005	
24 January 2005 (24.01.2005) Nume and mailing address of the ISA/US		Authorized officer Mulacles	E K-Ear-L
Mail Stop PCT. Attn: ISA/US Commissioner for Patents		Andrew Caldwell	
		Telephone No. 305-3900	

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